

## **REMARKS**

This is in response to the Office Action mailed May 13, 2008, which noted that claims 1-38 were pending in the application. Claims 1, 16, 22, 30, 32-34, 37 and 38 have been amended herein. New claims 39-41 have been added herein. Thus, claims 1-41 are pending for consideration, which is respectfully requested. No new matter has been added.

### **Objections to the Drawings**

On page 4, item 4, the Office Action objected to the drawings under 37 C.F.R. 1.83(a). Specifically, the Office Action stated that the feature of interface graphic element only aligned to a natural user motion of independent finger motion of claim 32 is not supported by the drawings. As discussed below with respect to the 35 U.S.C. § 112 rejection of claim 32, Applicants submit that such a feature is supported by the drawings (e.g. Figure 11A as described below).

### **Objection to the Claims**

On page 5, item 5, the Office Action objected to claim 34. Claim 34 has been amended to include a period at the end of the claim.

On page 5, item 6, the Office Action objected to claim 25. Applicants submit that paragraph 0040 and Figure 4 of the Specification, provide support for the term "computer readable storage." For example, the second sentence of paragraph 0040 recites "This platform 40 includes a conventional storage 42 (RAM, ROM, hard disc, floppy disc, CD, DVD etc.)." As shown, the storage devices described in the Specification are readable by a computer, and thus, provides support to the term "computer readable storage" to a person of ordinary skill in the art.

In view of the above, Applicants request the objection be withdrawn.

### **Rejection under 35 U.S.C. § 112**

On page 5, item 7, the Office Action rejected claims 32-33 under the first paragraph of 35 U.S.C. § 112 as failing to comply with the written description requirement.

Regarding claim 32, the Office Action stated that "an interface element graphic aligned with the control zone and indicating the function with the interface graphic and control zone aligned to a natural user motion of independent finger motion" was not described in the Specification (pg. 5, item 7). Specifically, the Office Action states that the Specification "does not describe of using ONLY independent finger" (sic). Moreover, in response to Applicants' previous arguments, the Office Action stated that "paragraph [0045] of the specification

describes Figure 11 and makes no mention of finger arc or of 'independent finger motion'" (pg. 3, lines 1-6). These assertions are respectfully traversed.

Paragraph [0044] of the Specification recites

In this case the menu 80 is also aligned with the curve 82 that is perpendicular to the strokes 60. This curve 82 is called an anti-arc, anti-curve or counter-arc, and is a curve that is oriented 90° from the elbow dominant arc of the strokes 60. This arc allows selection of items along this arc by slightly changing the shape of the dominant arc with a slight added motion added by the wrist and/or fingers, that causes the dominant arc to be extended above or below its natural path.

As described above, the Specification describes an anti-arc, anti-curve, or counter-arc that allows for the added motion of a wrist and/or fingers, and thus, provides support for menu selection based on the motion of a finger. Therefore, based on the Specification, a person of ordinary skill in the art would be able to limit the menu selection to only a finger motion (see e.g. "hot spots" 122-128 of Figure 11A, see also paragraph [0045], first two sentences).

Moreover, claim 7 as originally filed recited "wherein the user natural motion stroke comprises **one of** an elbow motion curve, a wrist motion curve, **a finger motion curve**, a shoulder motion curve and a combination of two or more of the curves." Thus, by reciting "one of," the Specification supports that the natural motion stroke be "only" a finger motion. Accordingly, the original claims (part of the written description) provide support that the control zone is only aligned to a natural user motion of independent finger motion.

Therefore, Applicants assert that the features of claim 32 are supported by the Specification for at least the reason discussed above.

Claim 33 has been amended to recite "wherein the **control zone** further comprises a **zone access** comprising..." Thus, Applicants submit that claim 33 now even more fully complies with 35 U.S.C. § 112.

In view of the above, Applicants request the rejection be withdrawn.

### **Rejection under 35 U.S.C. § 112**

On page 6, item 9, the Office Action rejected claims 1-10, 30-35 and 37-38 under the second paragraph of 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 30, 32, 34, 37 and 38 have been amended by inserting a comma for clarification purposes. For example, claim 1 has been amended to recite "an arc shaped interface element graphic located on the single side, aligned with the arc shaped control zone

and indicating the function with the arc shaped interface graphic<, > and the arc shaped control zone aligned to a natural user motion." Accordingly, Applicants submit that claims 1-10, 30-35 and 37-38 now even more fully comply with 35 U.S.C. § 112, and therefore, request the rejection be withdrawn.

### **Rejection under 35 U.S.C. § 102**

On page 7, item 11, the Office Action rejected claims 32-33 and 38 under 35 U.S.C. § 102(b) as being anticipated by Anderson et al (US 5,828,360). This rejection is respectfully traversed.

In the first paragraph of page 8, the Office Action refers to Figure 3 and column 5, lines 6-8 of Andersen as describing a control zone only aligned to a natural user motion of independent finger motion. Andersen, however, merely describes accessing the menu without **lifting** the wrist. In other words, the Office Action asserts that accessing the menu items (e.g. 31a-31h of Figure 3) without lifting a user's wrist equates to independent finger motion.

Applicants submit that not "lifting" a wrist does not equate to not moving (e.g. not rotating) a wrist. For example, although accessing menu items 31a and 31h of Figure 3 would not require a user to lift the wrist, a rotation of the wrist would be required in order to reach each menu item (i.e. the distance between menu items 31a and 31h require a rotation of the wrist in order to be reachable). Therefore, because a rotation of the wrist is required, Andersen does not describe the control zone **only** aligned to natural user motion of independent finger motion (i.e. static wrist with only a finger motion). Accordingly, Applicants submit that claim 32 and claim 33 (which depends from claim 32) patentably distinguish over Andersen.

In addition, Applicants point out that new claim 39 has been added to further emphasize a motion including a "static wrist."

With respect to claim 38, the Office Action on page 9 again refers to column 5, lines 6-8 of Andersen as disclosing the feature of "the arc shaped control zone aligned to a natural user motion produced by **only rotation of a user wrist**" as recited by claim 38. Accordingly, the Office Action appears to rely on Andersen's teaching of "not lifting a wrist" to describe both only independent finger motion, **and** only rotation of a user wrist. In other words, if a feature in Andersen teaches only independent finger motion, Applicants request clarification as how that same feature teaches only rotation of a wrist, without being contradictory.

In view of the above, Applicants request the rejection be withdrawn.

**Rejection under 35 U.S.C. § 103(a)**

On page 10, item 14, the Office Action rejected claims 1-23, 25, 29-31 and 34-37 under 35 U.S.C. § 103(a) as being unpatentable over Anderson et al. (US 5,828,360) in view of Miettinen et al. (US 2002/0054175). This rejection is respectfully traversed.

On page 11, the Office Action concedes that Anderson fails to teach the arc is aligned to a natural user motion produced by a compound motion of rotation of the user elbow and rotation of a user wrist, but relies on Miettinen to allegedly cure such a deficiency. Specifically, the Office Action cited Figure 1 and paragraph 0066 of Miettinen as describing rotation of a user elbow and rotation of a user shoulder. Applicants submit that the teaching of an alleged rotation of an elbow and shoulder, does not describe to a person of ordinary skill in the art "a compound motion of rotation of the user elbow and rotation of a user wrist" as recited by claim 1.

First, paragraph 0066 of Miettinen states "the selection areas can be arranged... in two different arcs for using one of which the user bends his elbow and moves his hand with the elbow bent... The other arc again corresponds to the moving with straight arms." In other words, Miettinen describes two *distinct* arcs one for each separate motion. Nothing in Miettinen describes a "compound motion" as recited in claim 1 for example. Moreover, even assuming *arguendo* that Miettinen describes a compound motion, Miettinen merely describes a hand and straight arm motion. Nothing in Miettinen describes "a rotation of a user wrist" as recited by claim 1. In fact, Miettinen teaches away from a wrist rotation as both the movements described in Miettinen are larger "sweeping" type movements based on the large interface surrounding the user (see e.g. Miettinen Figure 1).

Second, the Office Action in the paragraph spanning pages 11 and 12 appears to concede that the cited art fails to describe the specific compound motion of a rotation of the user elbow and rotation of a user wrist, but asserts that such a combination is obvious. The Examiner, however, provides no evidence supporting a finding of obviousness. Instead, the Examiner appears to rely on allegations that such a feature is "not described as being essential to the invention and ... the applicant states that any combination of curves could be used" (Office Action, page 12, lines 1-2), as a basis for asserting that the feature is an obvious design choice. Applicants submit that such a rationale does not provide a basis for asserting that a feature is obvious (see, MPEP 2141). For example, disclosing in an application that a combination of curves can be used does not necessarily mean that the combination of curves would be obvious to someone who has not read the application. Accordingly, Applicants

respectfully request that the Examiner support the assertions of obviousness by providing *evidence* of such, or withdraw the rejection.

In view of the above, Applicants submit that the cited art fails to disclose "the arc shaped control zone aligned to a natural user motion produced by a compound motion of a rotation of the user elbow and rotation of a user wrist" as recited by claim 1. Therefore, claim 1 patentably distinguishes over the cited art.

Applicants submit that the above discussion will aid the Examiner in appreciating the patentable distinctions of independent claims 11, 16, 22, 23, 25, 29, 30, 34, 36 and 37. The remaining dependent claims 2-10, 12-15, 17-21, 31 and 35 inherit the patentable recitations of their respective base claims, and therefore, patentably distinguish over the cited art.

Applicants submit that claims 16 and 22 further distinguish over the cited art. Claim 16, for example, has been amended to recite "the controls are aligned **coincident to** an arc intersecting the motion arc at 90 degrees" (emphasis added).

On page 18, the Office Action asserted that "Anderson ... discloses controls ... aligned along an arc intersecting the motion arc at 90 degrees" (Office Action, page 18, lines 11-13), citing "arcs 73 of the sub-options that are 90 degrees from the outer-circle arc" (page 18, lines 13-14) in Figures 7a and 7b. It is submitted that what is illustrated in Figures 7a and 7b of Anderson does not correspond to what is recited in claims 16 and 22 for several reasons. Most importantly, there is no suggestion that anything in Figures 7a and 7b of Anderson corresponds to a "motion arc" as recited in the claims. Second, the only line 73 in either in Figure 7a or Figure 7b is a radial line segment that divides the circle 72 in Figure 7b into various portions of a disc. Nothing has been cited in Anderson that teaches or suggests that controls should be aligned coincident to any arc or line segment, let alone one that intersects a motion arc at an angle of 90°. Rather, Figures 7a and 7b of Anderson appear to show grouping related operations in the same portion of a disc. Accordingly, Applicants submit that claims 16 patentably distinguishes over the cited art.

Claim 22, as amended recites "controls aligned coincident to the arc" (line 9), and "controls aligned along a counter arc intersecting the motion arc at 90 degrees" (line 10) and therefore, further patentably distinguishes over the cited art due to these limitations.

On page 28, item 15, the Office Action rejected claims 26-28 under 35 U.S.C. § 103(a) as being unpatentable over Anderson et al. (US 5,828,360) and Miettinen et al. (US

2002/0054175) and further in view of Ono (US 5,559,944). This rejection is respectfully traversed.

Applicants submit that Ono fails to cure the deficiencies of Anderson and Miettinen described above. Claim 26 recites "allowing a user to make strokes with an input device caused by a compound motion of an arm about an elbow of the user and a hand about a wrist of the user with the input device," and therefore, patentably distinguishes over the cited art.

Dependent claims 27 and 28 inherit that patentable recitations of claim 26, and therefore, patentably distinguish over the cited art. In addition, claims 27 and 28 recite additional patentably distinguishing features. For example, claim 28 recites that "the arc is determined from the strokes of the plural users" (lines 2-3). The Office Action referred to col. 3, lines 16-24 of Ono as disclosing this limitation. This portion of Ono states:

Since the locus for tracing the pull-down menu with a pen without causing an unnatural force depends on an individual calibration for each individual is essential. First, each individual is caused to indicate one point on the screen as shown in FIG. 7. Then, the wrist is caused to indicate an end point to which it can move without causing unnatural force, and the locus traced by the pen point is fitted to an arc, thereby obtaining an arc along which the menu is to be displayed.

This text describes an arc corresponding to a single user in a multi-user environment; however, Ono says nothing about the strokes of plural users being used to determine any arc. Accordingly, claim 28 patentably distinguishes over the cited art on this additional basis.

On page 30, item 16, the Office Action rejected claim 24 under 35 U.S.C. § 103(a) as being unpatentable over Anderson et al. (US 5,828,360) and Miettinen et al. (US 2002/0054175) and further in view of Ono (US 5,559,944). This rejection is respectfully traversed.

The Office Action asserted that Ono teaches determining whether there is a custom arc specified in col. 3, lines 16-24. This text is set forth above. This text says nothing about performing a "determining" operation and it appears that user is forced to indicate a start and end point ("each individual is caused").

In view of the above, Applicants request the rejections be withdrawn.

## New Claims

Applicants submit that new claims 39-41 patentably distinguish over the cited art. Claim 39 recites "and the control zone aligned to a natural user motion **of a static wrist** and independent finger motion" (emphasis added). Applicants submit that the cited art fails to disclose such a feature. For example, as described above with respect to claim 32, Anderson

merely describes not lifting a wrist. Not lifting a wrist, however, does not equate to not moving a wrist (i.e. static wrist). Accordingly, claim 39 patentably distinguishes over the cited art.

New claim 40 recites "the arc shaped control zone aligned to a natural user motion produced by a **concurrent motion** of a rotation of the user elbow and rotation of a user wrist" (emphasis added). As described above, Applicants submit that Miettinen merely describes two *distinct* arcs. Even assuming *arguendo* that the distinct arcs correspond to a rotation of the user elbow and rotation of a user wrist, nothing in Miettinen discloses the movement is a concurrent movement. In other words, the motions in Miettinen are distinct and do not occur at the same time. Thus, the motion produced in Miettinen is not a "concurrent motion" as recited by claim 40. Accordingly, claim 40 patentably distinguishes over the cited art.

New claim 41 recites "the cursor is positioned on a horizontal display and the compound motion is performed on a horizontal surface". In Anderson the motions of a user are on a table with a mouse or on a digitizing tablet with a stylus or a touch pad sitting on the table top. The natural motion is horizontal and parallel to the table top surface. However, the disk menu 30 of Anderson is displayed on a computer display sitting on the table top where the display surface is vertical and the disk menu is oriented vertically on the display. The vertically oriented menu 30 is not aligned with the natural tabletop horizontal motion by the user but rather perpendicular to it. Accordingly, Anderson fails to disclose "the cursor is positioned on a horizontal display" as recited by claim 41. Accordingly, claim 41 patentably distinguishes over the cited art.

## Conclusion

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

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If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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